



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2015-6550; Directorate Identifier 2013-NM-162-AD; Amendment 39-18638; AD 2016-18-08]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** We are superseding Airworthiness Directive (AD) 90-11-05 for certain Airbus Model A300 B2-1C, B2K-3C, B2-203, B4-2C, B4-103, and B4-203 airplanes and Model A300 B4-600 series airplanes. AD 90-11-05 required repetitive detailed inspections for cracking in the aft hinge brackets of the outer shroud box that is located in the outer wing box, and related investigative and corrective actions if necessary. This new AD changes certain compliance times and adds airplanes to the applicability. This AD was prompted by reports of cracks in the aft hinge brackets of the outer shroud box that is located in the outer wing box, which were found during routine maintenance checks, and our subsequent determination that a change in inspection compliance times is needed. We are issuing this AD to detect and correct cracking of the aft hinge brackets of the outer shroud box; such cracking could affect the structural integrity of the airplane.

**DATES:** This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this final rule, contact Airbus SAS, Airworthiness Office – EAW, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email [account.airworth-eas@airbus.com](mailto:account.airworth-eas@airbus.com); Internet <http://www.airbus.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-6550.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-6550; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (telephone 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Dan Rodina, Aerospace Engineer,  
International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind  
Avenue SW., Renton, WA 98057-3356; telephone 425-227-2125; fax 425-227-1149.

**SUPPLEMENTARY INFORMATION:**

**Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 90-11-05, Amendment 39-6603 (89-NM-223-AD) (55 FR 20129, May 15, 1990) (“AD 90-11-05”). AD 90-11-05 applied to certain Airbus Model A300 B2-1C, B2K-3C, B2-203, B4-2C, B4-103, and B4 203 airplanes and Model A300 B4-600 series airplanes. The NPRM published in the Federal Register on December 14, 2015 (80 FR 77279) (“the NPRM”). The NPRM was prompted by a determination that a change to certain compliance times is needed. The NPRM proposed to continue to require doing repetitive detailed inspections for cracking in the hinge brackets of the forward and aft outer shroud boxes that are located in the outer wing box, and related investigative and corrective actions if necessary. The NPRM also proposed to change certain compliance times and add airplanes to the applicability. We are issuing this AD to detect and correct cracking of the aft hinge brackets of the outer shroud box; such cracking could affect the structural integrity of the airplane.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2013-0181R1, dated August 20, 2013 (referred to after this as the Mandatory Continuing

Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain

Model A300 series airplanes and Model A300 B4-600 series airplanes. The MCAI states:

In the past, aft hinge brackets of the outer wing box were found cracked. Fracture of a bracket would allow vertical movement of the inner shroud box structure, which could result in damage to the top skin of the inboard flap. In addition, the loads carried by the brackets will be transferred to the remaining supports, which may also crack and cause extensive structural damage.

This condition, if not detected and corrected, could affect the structural integrity of the aeroplane.

To address this potential unsafe condition, DGAC [Direction Générale de l'Aviation Civile] France issued \* \* \* [an airworthiness directive] (later revised) to require repetitive inspections of the hinge bracket of the outer box and, depending on findings, corrective action(s).

Since that [DGAC] AD was issued, a fleet survey and updated Fatigue and Damage Tolerance analysis were performed in order to substantiate the A300 Extended Service Goal (ESG) and A300-600 Extended Service Goal (ESG2) exercise.

The results of these analyses led to a change in the inspection thresholds and intervals in Flight Cycles (FC) and the introduction of Flight Hours (FH) limits.

For the reasons described above, this [EASA] AD retains the requirements of DGAC France \* \* \* [an airworthiness directive], which is superseded, but requires those actions within the new thresholds and intervals given by Airbus Service Bulletin (SB) A300-57-0142 Revision 04 or A300-57-6010 Revision 05, as applicable to aeroplane model.

Revision 1 of this [EASA] AD is issued to add model A300 B4-203 aeroplanes to the applicability and compliance time tables. This model is covered by Airbus SB A300-57-0142, but was mistakenly omitted from the original [EASA] AD issue.

The corrective action for a hinge bracket that is cracked or fractured is replacing the damaged hinge bracket with a new bracket.

For airplanes on which a crack is found in one half bracket or both half brackets, related investigative actions include a general visual inspection for secondary damage (e.g., cracks, wear damage, pitting, and gouging) in the following areas:

- The inner shroud-box forward attachments and the attachment brackets at the inboard end.
- The inner and outer shroud-box structure, adjacent to the fractured bracket.
- The top skin of the inboard flap.

The corrective action for damage findings during the related investigative action is repair using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or EASA; or Airbus's EASA Design Organization Approval (DOA).

The compliance time for related investigative actions and corrective actions is before further flight.

You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-6550.

### **Comments**

We gave the public the opportunity to participate in developing this AD. The following presents the comment received on the NPRM and the FAA's response to the comment.

### **Request to Exclude Certain Airplanes from the Applicability**

FedEx requested that we exclude from the proposed applicability airplanes on which the actions specified in Airbus Service Bulletin A300-57-6011, Revision 2, dated July 10, 1989, have been accomplished. FedEx stated that it has accomplished the optional terminating actions provided in paragraph (j)(1) of the proposed AD, and specified in Airbus Service Bulletin A300-57-6011, Revision 2, dated July 10, 1989, on several of its airplanes.

We disagree with FedEx's request. As of the effective date of this AD, additional actions are required for airplanes on which the optional modification has been accomplished. These airplanes will need to have a one-time detailed visual inspection of the forward and aft outer shroud box with no cracking found, as required by paragraph (j)(2) of this AD. We have not changed this AD in this regard.

### **Changes Made to this AD**

In paragraph (j)(2) of the proposed AD, we proposed to provide an optional method of compliance (i.e., a replacement and a one-time inspection) for actions specified in paragraph (g) of the proposed AD. We also proposed to give credit in paragraph (k)(2) of the proposed AD for replacements accomplished before the effective date of this AD using the same service information identified in paragraph (j)(2) of the AD:

- Airbus Service Bulletin A300-57-143, dated December 17, 1986.
- Airbus Service Bulletin A300-57-143, Revision 1, dated March 19, 1987.

- Airbus Service Bulletin A300-57-6011, dated December 17, 1986.
- Airbus Service Bulletin A300-57-6011, Revision 1, dated March 19, 1987.

Since we cannot make this service information reasonably available, we have revised paragraph (j)(2) of the proposed AD, removed redundant paragraph (k)(2) of the proposed AD from this AD, and redesignated paragraph (k)(1) and subsequent subparagraphs accordingly. We revised paragraph (j)(2) of this AD by removing the references to the service information and instead specified that operators must do the replacement using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or EASA; or Airbus's EASA Design Organization Approval (DOA).

### **Conclusion**

We reviewed the available data, including the comment received, and determined that air safety and the public interest require adopting this AD as proposed except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

### **Related Service Information under 1 CFR part 51**

Airbus has issued the following service information.

- Airbus Service Bulletin A300-57-0142, Revision 04, dated March 30, 2011, which describes procedures for doing an inspection of the forward and aft hinge brackets on the outer shroud box.

- Airbus Service Bulletin A300-57-143, Revision 2, dated July 10, 1989, which describes procedures for replacing the aft aluminum alloy brackets on the outer shroud box with new steel brackets.

- Airbus Service Bulletin A300-57-6010, Revision 05, dated February 21, 2011, which describes procedures for doing an inspection of the forward and aft hinge brackets on the outer shroud box.

- Airbus Service Bulletin A300-57-6011, Revision 2, dated July 10, 1989, which describes procedures for replacing the aft aluminum alloy brackets on the outer shroud box with new steel brackets.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **Costs of Compliance**

We estimate that this AD affects 3 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:



**Estimated costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Inspection	8 work-hours X \$85 per hour = \$680 per inspection cycle	\$0	\$680 per inspection cycle	\$2,040 per inspection cycle

We estimate the following costs to do any necessary replacements that would be required based on the results of the inspection. We have no way of determining the number of aircraft that might need these replacements:

**On-condition costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>
Replacement	27 work-hours X \$85 per hour = \$2,295	\$25,650	\$27,945

We have received no definitive data that would enable us to provide cost estimates for the on-condition related investigative and corrective actions specified in this AD.

**Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. “Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress

charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

## **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 90-11-05, Amendment 39-6603 (89-NM-223-AD) (55 FR 20129, May 15, 1990), and adding the following new AD:

**2016-18-08 Airbus:** Amendment 39-18638. Docket No. FAA-2015-6550; Directorate Identifier 2013-NM-162-AD.

#### **(a) Effective Date**

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

This AD replaces AD 90-11-05, Amendment 39-6603 (89-NM-223-AD) (55 FR 20129, May 15, 1990).

#### **(c) Applicability**

This AD applies to Airbus Model A300 B2-1C, B2K-3C, B2-203, B4-2C, B4-103, and B4-203 airplanes; Model A300 B4-601, B4-603, B4-620, and B4-622 airplanes; and Model A300 B4-605R airplanes; certificated in any category; except airplanes on which Airbus Modification 6661 has been embodied during production.

#### **(d) Subject**

Air Transport Association (ATA) of America Code 57, Wings.

**(e) Reason**

This AD was prompted by reports of cracks in the aft hinge brackets of the outer shroud box that is located in the outer wing box, which were found during routine maintenance checks, and our subsequent determination that a change in inspection compliance times is needed. We are issuing this AD to detect and correct cracking of the aft hinge brackets of the outer shroud box; such cracking could affect the structural integrity of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Repetitive Inspections**

At the applicable compliance time specified in paragraph (g)(1), (g)(2), or (g)(3) of this AD: Do a detailed inspection for cracks and fractures of the hinge brackets of the forward and aft outer shroud boxes, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A300-57-0142, Revision 04, dated March 30, 2011; or Airbus Service Bulletin A300-57-6010, Revision 05, dated February 21, 2011; as applicable. Repeat the inspection thereafter at the applicable interval specified in paragraph (g)(1), (g)(2), or (g)(3) of this AD, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A300-57-0142, Revision 04, dated March 30, 2011; or Airbus Service Bulletin A300-57-6010, Revision 05, dated February 21, 2011; as applicable. Doing the replacement specified in paragraph (j) of this AD terminates the repetitive inspections required by this paragraph.

(1) For Model A300 B4-601, B4-603, B4-605R, B4-620, B4-622, B4-2C, and B4-203 airplanes: Do the inspection at the later of the times specified in paragraphs (g)(1)(i) and (g)(1)(ii) of this AD. Repeat the inspection thereafter at intervals not to exceed 1,000 flight cycles or 2,000 flight hours, whichever occurs first.

(i) Before the accumulation of 5,000 flight cycles or 10,400 flight hours since first flight, whichever occurs first.

(ii) Within 100 flight cycles after the effective date of this AD.

(2) For Model A300 B2-1C, B2-203, and B2K-3C airplanes: Do the inspection at the later of the times specified in paragraphs (g)(2)(i) and (g)(2)(ii) of this AD. Repeat the inspection thereafter at intervals not to exceed 1,000 flight cycles or 1,000 flight hours, whichever occurs first.

(i) Before the accumulation of 5,000 flight cycles or 5,400 flight hours since first flight, whichever occurs first.

(ii) Within 100 flight cycles after the effective date of this AD.

(3) For Model A300 B4-103 airplanes: Do the inspection at the later of the times specified in paragraphs (g)(3)(i) and (g)(3)(ii) of this AD. Repeat the inspection thereafter at intervals not to exceed 1,000 flight cycles or 1,300 flight hours, whichever occurs first.

(i) Before the accumulation of 5,000 flight cycles or 6,600 flight hours since first flight, whichever occurs first.

(ii) Within 100 flight cycles after the effective date of this AD.

**(h) Corrective Action**

If any crack or fracture is found during any inspection required by paragraph (g) of this AD: Before further flight, replace the damaged hinge bracket with a new bracket, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A300-57-143, Revision 2, dated July 10, 1989; or Airbus A300-57-6011, Revision 2, dated July 10, 1989; as applicable.

**(i) Related Investigative and Corrective Actions**

If any crack or fracture is found during any inspection required by paragraph (g) of this AD: Before further flight, do a general visual inspection for secondary damage (e.g., cracks, wear damage, pitting, and gouging) in the areas specified in paragraphs (i)(1), (i)(2), and (i)(3) of this AD, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A300-57-0142, Revision 04, dated March 30, 2011; or Airbus Service Bulletin A300-57-6010, Revision 05, dated February 21, 2011; as applicable. If any damage is found, before further flight, repair using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or Airbus's EASA Design Organization Approval (DOA).

(1) The inner shroud-box forward attachments and the attachment brackets at the inboard end.

(2) The inner and outer shroud-box structure, adjacent to the fractured bracket.

(3) The top skin of the inboard flap.

**(j) Optional Terminating Action for Inspection Requirements of Paragraph (g) of this AD**

(1) Replacement of the hinge bracket, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A300-57-143, Revision 2, dated July 10, 1989 (for Model A300 series airplanes); or Airbus Service Bulletin A300-57-6011, Revision 2, dated July 10, 1989; as applicable; terminates the inspection requirements of paragraph (g) of this AD (for Model A300 B4-600 series airplanes).

(2) Replacement of a hinge bracket before the effective date of this AD terminates the repetitive inspections required by paragraph (g) of this AD, provided that after the hinge bracket replacement, but before further flight after the effective date of this AD, a one-time detailed inspection of the forward and aft outer shroud box has been done with no cracking found, in accordance with paragraph (g) of this AD. The replacement must be done in accordance with a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or EASA; or Airbus's EASA DOA.

**(k) Credit for Previous Actions**

This paragraph provides credit for inspections required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using any of the applicable service information listed in paragraphs (k)(1) through (k)(8) of this AD.

- (1) Airbus Service Bulletin A300-57-142, dated December 17, 1986.
- (2) Airbus Service Bulletin A300-57-142, Revision 1, dated April 9, 1990.
- (3) Airbus Service Bulletin A300-57-142, Revision 2, dated January 16, 1991.
- (4) Airbus Service Bulletin A300-57-0142, Revision 03, dated February 22, 1999.
- (5) Airbus Service Bulletin A300-57-6010, Revision 1, dated December 14, 1990.

(6) Airbus Service Bulletin A300-57-6010, Revision 02, dated March 30, 1998.

(7) Airbus Service Bulletin A300-57-6010, Revision 03, dated September 16, 1998.

(8) Airbus Service Bulletin A300-57-6010, Revision 04, dated February 22, 1999.

**(I) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Dan Rodina, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-2125; fax 425-227-1149. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(2) *Contacting the Manufacturer*: As of the effective date of this AD, for any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; EASA; or Airbus's EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.



**(m) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2013-0181R1, dated August 20, 2013, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-6550.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (n)(3) and (n)(4) of this AD.

**(n) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Airbus Service Bulletin A300-57-0142, Revision 04, dated March 30, 2011.

(ii) Airbus Service Bulletin A300-57-143, Revision 2, dated July 10, 1989.

Pages 1, 3, 4, 7, 10, 13, and 14 of this document are identified as Revision 2, dated July 10, 1989; pages 2 and 8 are identified as original, dated December 12, 1986; and pages 5, 6, 9, 11, 12, and 15 are identified as Revision March 19, 1987.

(iii) Airbus Service Bulletin A300-57-6010, Revision 05, dated February 21, 2011.

(iv) Airbus Service Bulletin A300-57-6011, Revision 2, dated July 10, 1989.

Pages 1, 2, 5, 7, 8, 11, and 12 of this document are identified as Revision 2, dated

July 10, 1989; pages 3, 4, and 13 are identified as Revision 1, dated March 19, 1987; and pages 6, 9, 10 are identified as original, dated December 17, 1986.

(3) For service information identified in this AD, contact Airbus SAS, Airworthiness Office – EAW, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email [account.airworth-eas@airbus.com](mailto:account.airworth-eas@airbus.com); Internet <http://www.airbus.com>.

(4) You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on August 24, 2016.

John P. Piccola, Jr.,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

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